REMARKS:

Claim 14 is currently being amended to obviate the Examiner's rejection thereof. These amendments do not introduce new matter within the meaning of 35 U.S.C. §132. Accordingly, Applicant respectfully requests the Examiner to enter the amendments.

1. Rejection of Claim 14 Under 35 U.S.C. §112, 1st Paragraph

Applicant has amended claim 14 to obviate the instant rejection. Accordingly, Applicant respectfully requests the Examiner to withdraw the rejection.

2. Rejection of Claims 1, 3-5, 7, and 9-18 Under 35 U.S.C. §112, 1st Paragraph

Applicant respectfully traverses the rejection of claims 1, 3-5, 7, and 9-18 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The current Office Action states on page 4, lines 13-17,

> The recitation of 'wherein the metallocene compound is used in each polymerization phase' finds no support for the breadth in the Specification, as originally filed. This phrase may be interpreted in that the metallocene
>
> 1) is the same catalyst and is passed from one chamber to another, or
>
> 2) may be the same catalyst but added in different chambers.

However, Applicant's specification states on page 9, line 12 - page 13, line 17, and page 14, lines 9-12,

> The present invention further provides for the preparation of the propylene polymers present in the propylene copolymer compositions of the present invention. This is preferably carried out in a multistage polymerization process comprising at least two successive polymerization steps which are generally carried out in a reactor cascade. It is possible to use the customary reactors employed for the preparation of propylene polymers.
>
> The polymerization can be carried out in a known manner in bulk, in suspension, in the gas phase or in a supercritical medium. It can be carried out batchwise or preferably continuously. Solution processes, suspension processes, stirred gas-phase processes or gas-phase fluidized-bed processes are possible. As solvents or suspension media, it is possible to use inert hydrocarbons, for example isobutane, or else the monomers themselves. It is also possible to carry out one or more steps of the process of the present invention in two or more reactors. The size of the reactors is not of critical importance for the process of the present invention. It depends on the output which is to be achieved in the individual reaction zone(s).
>
> Preference is given to processes in which the polymerization in the second step in which the propylene copolymer(s) B is/are formed takes place from the gas phase. The preceding polymerization of the propylene polymers A can be carried out either in block, i.e. in liquid propylene as suspension medium, or else from the gas phase. If all polymerizations take place from the gas phase, they are preferably carried out in a cascade comprising stirred gas-phase reactors which are connected in series and in which the pulverulent reaction bed is kept in motion by means of a vertical stirrer. The reaction bed generally consists of the polymer which is polymerized in the respective reactor. If the initial polymerization of the propylene polymers A is carried out in bulk, preference is given to using a cascade made up of one or more loop reactors and one or more gas-phase fluidized-bed reactors. The preparation can also be carried out in a multizone reactor.

> To prepare the propylene polymers present in the propylene copolymer compositions of the present invention, preference is given to using catalyst systems based on metallocene compounds of transition metals of group 3, 4, 5 or 6 of the Periodic Table of the Elements.
>
> Particular preference is given to catalyst systems based on metallocene compounds of the formula (I) . . . .
>
> ******
>
> It is also possible to use mixtures of various metallocene compounds or mixtures of various catalyst systems. However, preference is given to using only one catalyst system comprising one metallocene compound, which is used for the polymerization of the propylene polymer A and the propylene copolymer B.

Accordingly, Applicant's specification makes clear that the methodology of using the catalyst is irrelevant, so long as the currently claimed propylene copolymer compositions are obtained from a multiphase polymerization process comprising a (i.e., at least one) metallocene compound. Additionally, Applicant's specification makes clear a single catalyst system comprising a single metallocene compound can be used, or mixtures of various catalyst systems comprising mixtures of various metallocenes can be used. In fact, original claim 13 in Applicant's specification (i.e., WO 03/106553) states,

> A process for preparing a propylene copolymer composition as claimed in any of claims 1 to 12, wherein a multistage polymerization is carried out and a catalyst system based on metallocene compounds is used.

See MPEP §2163 (I)(A). Therefore, for the reasons above, Applicant respectfully believes the instant rejection should be withdrawn.

Notwithstanding, Applicant respectfully traverses the instant rejection since the current rejection does not adhere to the Office's policy for determining compliance with the written description requirement. In particular, MPEP §2163 (II) A states,

> II. METHODOLOGY FOR DETERMINING ADEQUACY OF WRITTEN DESCRIPTION
>
> A. Read and Analyze the Specification for Compliance with 35 U.S.C. 112, para. 1
>
> Office personnel should adhere to the following procedures when reviewing patent applications for compliance with the written description requirement of 35 U.S.C. 112, para. 1. **The examiner has the initial burden**, after a thorough reading and evaluation of the content of the application, of presenting **evidence or reasons why a person skilled in the art would not recognize that the written description of the invention provides support for the claims.** (Emphasis added)

In fact, the instant rejection does not proffer any evidence or legitimate reasoning as to *why* a person skilled in the art would not have recognized that Applicant's written description in Applicant's specification provides support for Applicant's currently pending claims. However, as noted above, this is the Examiner's initial burden to establish a rejection under 35 U.S.C. §112, first paragraph. Therefore, Applicant respectfully believes the instant rejection should be withdrawn.

In light of the above, Applicant respectfully believes claims 1, 3-5, 7, and 9-18 fully comply with 35 U.S.C. §112, and that one skilled in the art would recognize that the written description in Applicant's specification provides support for the currently pending

claims. As such, Applicant respectfully requests for the Examiner to withdraw the instant rejection.

3. Rejection of Claims 1, 3-5, 7, and 9-18 Under 35 U.S.C. §112, 2nd Paragraph

Applicant respectfully traverses the rejection of claims 1, 3-5, 7, and 9-18 under 35 U.S.C. §112, second paragraph, as being indefinite. The current Office Action states on page 5, lines 4-8,

> The recitation of 'wherein the metallocene compound is used in each polymerization phase' fails to delineate the steps employed with the metallocene. This phrase may be interpreted in that the metallocene 1) is passed from one chamber to another, or 2) may be the same catalyst but added in different chambers. As such, the proper metes and bounds of the claims cannot be easily ascertained.

However, MPEP §2173.02 states,

> The examiner's focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. 112, second paragraph, is whether the claim meets the threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available.
>
> ******
>
> See also *Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1366, 71 USPQ2d 1081, 1089 (Fed. Cir. 2004)('The requirement to 'distinctly' claim means that the claim must have a meaning discernible to one of ordinary skill in the art when construed according to correct principles. . . . Only when a claim remains insolubly ambiguous without a discernible meaning after all reasonable attempts at construction must a court declare it indefinite.').

Additionally, MPEP §2173.04 states,

> Breadth of a claim is not to be equated with indefiniteness. *In re Miller*, 441 F.2d 689, 169 USPQ 597 (CCPA 1971).

Accordingly, **only** if a claim is "insolubly ambiguous" should it be declared indefinite. However, Applicant respectfully believes the instant rejection is clearly misguided given the Examiner has construed what he believes are the metes and bounds of the claims, albeit without consideration to using mixtures of metallocenes and mixtures of catalyst systems (i.e., "a metallocene compound" being equal to "at least one metallocene compound"). See Applicant's specification at page 14, lines 9-12. Therefore, Applicant respectfully believes the instant rejection should be withdrawn.

In light of the above, Applicant respectfully believes claims 1, 3-5, 7, and 9-18 fully comply with 35 U.S.C. §112, and that one skilled in the art would recognize the metes and bounds of the currently pending claims. As such, Applicant respectfully requests for the Examiner to withdraw the instant rejection.

4. Rejection of Claims 1, 3-5, 7, and 9-18 Under 35 U.S.C. §103(a)

Applicant respectfully traverses the rejection of claims 1, 3-5, 7, and 9-18 as being unpatentable over U.S. Patent 6,635,715 (herein referred to as "Datta, et al."). Arguments regarding Datta, et al. in Applicant's previous response of July 28, 2008 are incorporated herein by reference in their entirety.

As outlined in Applicant's aforementioned response of July 28, 2008, the U.S. Supreme Court in Graham v. John Deere Co., 148 U.S.P.Q. 459 (1966) held that non-obviousness was determined under §103 by (1) determining the scope and content of the prior art; (2) ascertaining the differences between the prior art and the claims at issue; (3) resolving the level of ordinary skill in the art; and, (4) inquiring as to any objective evidence of non-obviousness.

Accordingly, for the Examiner to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §2142.

With respect to instant rejection, the current Office Action states on page 5, lines 14-16, and page 8, lines 1-6,

> The reference to Datta et al teaches the production of **a blend, which may be through multi-stage polymerizations**, of a propylene copolymer blend that may comprise a propylene copolymer. . . .
>
> ******
>
> With regard to the rejection of claims 1, 3-5, 7 and 9-18 under 35 U.S.C. 103(a) as being unpatentable over Datta et al. (US 6,635,715), applicants argue there is no multiple stage but rather, [*sic*] a reactor blending. This is not so in view of the **paragraph bridging column 6**

> **to column 7**, where a multiple stage reactor is disclosed. While the product 'may be prepared' by a melt blend process, the reference also teaches the production thereof by a multistage reaction, **as herein claimed.** (Emphasis added)

However, first and foremost, the paragraph cited by the Examiner (i.e., col. 6, line 58 - col. 7, line 7) refers to the First Polymer Component (FPC), and not to the final polymer blend compositions disclosed in Datta, et al. In particular, col. 6, lines 58-59 in Datta, et al. discloses,

> There is no particular limitation on the method for preparing **this** propylene polymer **component** of the invention. (Emphasis added).

Alternatively, as outlined in Applicant's previous response of July 28, 2008, Datta, et al. discloses the final polymer compositions are obtained by physical blending in col. 10, 16-47, and col. 11, 57-62,

> **The Blend of First and Second Polymer Components**
>
> The copolymer blends of first polymer component and second polymer component of the instant invention may be prepared by any procedure that guarantees the intimate admixture of the components. For example, the components can be combined **by melt pressing the components together** on a Carver press to a thickness of about 0.5 millimeter (20 mils) and a temperature of about 180° C., rolling up the resulting slab, folding the ends together, and repeating the pressing, rolling, and folding operation about 10 times. **Internal mixers** are particularly useful for solution or **melt blending**. Blending at a temperature of about 180° C. to 240° C. in a Brabender Plastograph for about 1 to 20 minutes has been found satisfactory. Still another method that may be used for admixing the components involves **blending the polymers in a Banbury internal mixer** above the flux temperature of all of the components, e.g., 180° C. for about 5 minutes. The

> complete admixture of the polymeric components is indicated by the narrowing of the crystallization and melting transitions characteristic of the polypropylene crystallinity of the components to give a single or a small range crystallization and melting points for the blend. These **batch mixing** procedures are typically supplanted by continuous mixing processes in the industry. These processes are well known in the art and include single and twin screw mixing extruders, static mixers for mixing molten polymer streams of low viscosity, impingement mixers, as well as other machines and processes, designed to disperse the first polymer component and the second polymer component in intimate contact.
>
> *****
>
> The mechanism by which the desirable characteristics of the present copolymer blends are obtained is not fully understood. . . . However, **the intimate blending** of the polymers having the required crystallinity characteristics apparently results in a crystallization phenomenon that modifies the other physical properties of the propylene/alpha-olefin copolymer, thus measurably increasing its commercial utility and range of applications. (Emphasis added)

Accordingly, Applicant respectfully believes Datta, et al. fails to disclose Applicant's currently claimed propylene copolymer compositions comprising components (A) and (B), wherein, at the very least, the propylene homopolymer (A) and the propylene copolymer (B) are present as separate phases, and the propylene copolymer compositions are obtained from a multiphase polymerization process comprising a metallocene compound, wherein the metallocene compound is used in each polymerization phase.

This is evidenced by Applicant's specification on page 9, lines 12-37. In particular, the aforementioned section in Applicant's

specification teaches how the currently claimed propylene copolymer compositions are prepared, which discloses,

> The present invention further provides for the preparation of the propylene polymers present in the propylene copolymer compositions of the present invention. This is preferably carried out in **a multistage polymerization process comprising at least two successive polymerization steps which are generally carried out in a reactor cascade**. It is possible to use the customary reactors employed for the preparation of propylene polymers.
>
> The polymerization can be carried out in a known manner in bulk, in suspension, in the gas phase or in a supercritical medium. It can be carried out batchwise or preferably continuously. Solution processes, suspension processes, stirred gas-phase processes or gas-phase fluidized-bed processes are possible. As solvents or suspension media, it is possible to use inert hydrocarbons, for example isobutane, or else the monomers themselves. It is also possible to carry out one or more steps of the process of the present invention in two or more reactors. The size of the reactors is not of critical importance for the process of the present invention. It depends on the output which is to be achieved in the individual reaction zone(s).
>
> Preference is given to processes in which the polymerization in the second step in which the propylene copolymer(s) B is/are formed takes place from the gas phase. The preceding polymerization of the propylene polymers A can be carried out either in block, i.e. in liquid propylene as suspension medium, or else from the gas phase. If all polymerizations take place from the gas phase, they are preferably carried out in a cascade comprising stirred gas-phase reactors which are connected in series and in which the pulverulent reaction bed is kept in motion by means of a vertical stirrer. The reaction bed generally consists of the polymer which is polymerized in the respective reactor. If the initial polymerization of the propylene polymers A is carried out in bulk, preference is given to using a cascade made up of one or more loop reactors and one or more gas-phase fluidized-bed reactors. The preparation can also be carried out in a multizone reactor. (Emphasis added)

Therefore, Applicant respectfully believes it is clear that the currently claimed propylene copolymer compositions are different than those disclosed in Datta, et al., and are produced in a clearly different manner. This is further evidenced by the fact that Datta, et al. discloses blending the two polymer components via **physical blending procedures**, and that such physical blending is **critical** to the production of the resultant polymers disclosed therein. See col. 11, lines 35-63 in Datta, et al. Additionally, this fact is clearly further evidenced given every working example, whether exemplary or comparative, demonstrates physically blending the two polymer components together. However, as discussed *supra*, Applicant is currently claiming a process wherein the propylene copolymer composition is obtained from a multistage polymerization process comprising a metallocene compound, wherein the metallocene compound is used in each polymerization phase. As noted by the Examiner, "A reference is taken for the entirety of its teachings". Accordingly, in light of the entire disclosure of Datta, et al., Applicant respectfully believes the current rejection should be withdrawn.

In view of the above, Applicant respectfully believes claims 1, 3-5, 7, and 9-18 are novel and patentably distinct from Datta, et al. Therefore, Applicant respectfully requests for the Examiner to withdraw the instant rejection.

5. Rejection of Claims 1, 3-5, 7, and 9-18 Under 35 U.S.C. §103(a)

Applicant respectfully traverses the rejection of claims 1, 3-5, 7, and 9-18 as being unpatentable over WO 98/10016 (herein referred to as "Mehta, et al.").

As noted above, the U.S. Supreme Court in Graham v. John Deere Co., 148 U.S.P.Q. 459 (1966) held that non-obviousness was determined under §103 by (1) determining the scope and content of the prior art; (2) ascertaining the differences between the prior art and the claims at issue; (3) resolving the level of ordinary skill in the art; and, (4) inquiring as to any objective evidence of non-obviousness.

Accordingly, for the Examiner to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §2142.

With respect to the instant rejection, Applicant respectfully believes Mehta, et al. relates to crystalline propylene polymer compositions, and more specifically to crystalline propylene polymer

compositions comprising a **crystalline** propylene homopolymer and a **crystalline** propylene copolymer. See page 1, lines 8-20; page 3, lines 3-11; page 3, lines 13-20; page 22, line 19-20; and page 23, lines 12-14 in Mehta, et al. Additionally, Mehta, et al. discloses on page 2, lines 16-23,

> Multiple stage polymerization processes are known in the art as is the use of multiple metallocenes, however, multiple stage polymerization processes are usually used to prepare **block copolymers** which contain rubber materials **as opposed to the crystalline polymers of this invention**.
>
> ******
>
> The propylene/ethylene copolymer portion of these compositions is a non-crystalline, rubbery material suitable for molding applications rather than films. (Emphasis added)

Accordingly, Applicant respectfully believes Mehta, et al. discloses crystalline propylene polymer compositions made up of a **crystalline** propylene homopolymer and a **crystalline** propylene copolymer, which when combined would result in the two components dissolving in one another. In other words, Applicant respectfully believes Mehta, et al. relates to crystalline polymer compositions in which a crystalline propylene homopolymer is combined with a crystalline propylene copolymer, which would result in the crystalline propylene homopolymer and crystalline propylene copolymer dissolving together, and thus, would not result in the two components being present in **two separate phases** as currently claimed by Applicant.

Alternatively, Applicant is currently claiming propylene copolymer compositions comprising components (A) and (B), wherein, at the very least, the propylene homopolymer (A) and the propylene copolymer (B) **are present as separate phases**. In fact, Applicant's specification states on page 3, lines 6-24,

> The propylene polymer A present in the propylene copolymer compositions of the present invention and the propylene copolymer present as component B **are present as separate phases**. Propylene copolymer compositions having such a structure are also referred to as multiphase propylene copolymers, heterogeneous propylene copolymers or as **propylene block copolymers**.
>
> In the multiphase propylene copolymer compositions of the present invention, the propylene polymer A usually forms a three-dimensionally coherent phase in which the phase of the propylene copolymer B is embedded. Such a coherent phase in which one or more other phases are dispersed is frequently referred to as the matrix. The matrix usually also makes up the major proportion by weight of the polymer composition.
>
> In the multiphase propylene copolymer compositions of the present invention, the propylene copolymer B is generally dispersed in finely divided form in the matrix. Furthermore, the diameter of the then isolated domains of the propylene copolymer B is usually from 100 nm to 1000 nm. Preference is given to a geometry with a length in the range from 100 nm to 1000 nm and a thickness in the range from 100 to 300 nm. The determination of the geometry of the individual phases of the propylene copolymer compositions can be carried out, for example, by evaluation of contrasted transmission electron micrographs (TEMs). (Emphasis added)

Additionally, as noted above, Mehta, et al. clearly teaches away from Applicant's currently claimed propylene copolymer compositions insomuch that Mehta, et al. discloses the compositions therein are not block copolymers. However, as outlined above,

Applicant's specification notes components (A) and (B) are present in separate phases and, ". . . are also referred to as multiphase propylene copolymers, heterogeneous propylene copolymers or as **propylene block copolymers**." As noted by the Examiner in the rejection to Datta, et al., "A reference is taken for the entirety of its teachings". Accordingly, in light of the entire disclosure of Mehta, et al., Applicant respectfully believes the current rejection should be withdrawn.

In view of the above, Applicant respectfully believes claims 1, 3-5, 7, and 9-18 are novel and patentably distinct from Mehta, et al. Therefore, Applicant respectfully requests for the Examiner to withdraw the instant rejection.

CONCLUSION

Based upon the above remarks, the presently claimed subject matter is believed to be novel and patentably distinguishable over the references of record. The Examiner is therefore respectfully requested to reconsider and withdraw all rejections, and allow all pending claims 1, 3-5, 7, and 9-18. Favorable action with an early allowance of the claims pending in this application is earnestly solicited.

The Examiner is welcomed to telephone the undersigned practioner if he has any questions or comments.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 on March 24, 2009

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Date